



Veille scientifique sur le thème *Santé Environnement intérieur*

2006 – 1^{er} et 2^{ème} trimestres

147 articles ont été répertoriés pendant la période du 20 février 2006 au 24 mai 2006.

Les articles sont classés selon les chapitres suivants :

I- SUBSTANCES

- I-1. Gaz inorganiques (radon, O₃, NO_x, CO)
- I-2. Composés Organiques Volatils et Composés Organiques Semi-Volatils
- I-3. Particules
- I-4. Biocontaminants
- I-5. Pesticides / biocides
- I-6. Métaux
- I-7. Fumée de tabac environnementale

II- LIEUX DE VIE

- II-1. Habitat privé
- II-2. Transports
- II-3. Autres lieux de vie : écoles, bureaux, espaces de loisirs, lieux publics
- II-4. Ventilation
- II-5. Modélisation
- II-6. Relations air intérieur - air extérieur

III- EFFETS SANITAIRES

- III-1. Effets chez l'animal
- III-2. Effets chez l'homme
- III-3. Populations sensibles

IV- EVALUATION DES RISQUES

- IV-1. Expologie : mesure de l'exposition et ses outils (indicateurs biologiques, budgets espace-temps)
- IV-2. Evaluation des risques

V- GESTION / REMEDIATION

VI- ARTICLES GENERAUX SUR LA THEMATIQUE

Chaque article, à l'exception des articles de synthèse qui sont compilés en fin de document, n'apparaît que dans un seul chapitre. Le lecteur est dès lors invité à compléter sa consultation d'un chapitre particulier par une recherche par mot-clé.

Le lecteur est invité à se reporter à la note relative à la veille scientifique pour la liste des revues et bases de recherche bibliographique consultées dans le cadre de la veille scientifique menée par le réseau RSEIN.

I- SUBSTANCES

I-1. Gaz inorganiques

- **Radon**

1. Title: A survey of **indoor workplace radon** concentration in Japan
Author(s): Oikawa S, Kanno N, Sanada T, Abukawa J, Higuchi H
Source: JOURNAL OF ENVIRONMENTAL RADIOACTIVITY 87 (3): 239-245 2006
2. Title: Correlation test between **indoor radon and surficial gamma radiation** in northern Virginia
Author(s): Saiway GFN, Mushrush GW, Mose DG
Source: JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING 41 (4): 613-620 2006
3. Title: **Dosimetric challenges for residential radon epidemiology**
Author(s): Steck DJ, Field RW
Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 655-664 APR 1 2006
4. Title: A **geographic information systems (GIS) and spatial modeling approach** to assessing indoor radon potential at local level
Author(s): Lacan I, Zhou JY, Liu KS, Waldman J
Source: APPLIED RADIATION AND ISOTOPES 64 (4): 490-496 APR 2006
5. Title: **Radon exhalation from phosphogypsum building boards**: symmetry constraints, impermeable boundary conditions and numerical simulation of a test case
Author(s): Rabi JA, da Silva NC
Source: JOURNAL OF ENVIRONMENTAL RADIOACTIVITY 86 (2): 164-175 2006

- **Ozone**

6. Title: Quantification of **ozone levels** in indoor environments generated by ionization and ozonolysis air purifiers
Author(s): Britigan N, Alshawa A, Nizkorodov SA
Source: JOURNAL OF THE AIR & WASTE MANAGEMENT ASSOCIATION 56 (5): 601-610 MAY 2006

- **Ammoniac**

7. Title: Emission of **ammonia from indoor concrete** wall and assessment of human exposure
Author(s): Bai Z, Dong Y, Wang Z, Zhu T
Source: ENVIRONMENT INTERNATIONAL 32 (3): 303-311 APR 2006

I-2. COV, COSEmi-Volatils

- **COV**

8. Title: **Aldehyde and volatile organic compound** emissions from laminated veneer lumber
Author(s): Miyamoto K, Tohmura S, Inoue A
Source: MOKUZAI GAKKAISHI 52 (2): 113-118 2006

9. Title: Quality assurance of indoor environmental substances - **Polychlorinated biphenyls and aldehydes**
 Author(s): Gabrio T, Amend R, Blessing R, Feurer J, Friedle A, Goes R, Hummel A, Jovanovic S, Link B, Schweinsberg F, Volland G, Wacker S, Zolter D
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 66 (3): 79-86 MAR 2006
10. Title: Metal oxide sensor arrays for the detection, differentiation, and quantification of **volatile organic compounds** at sub-parts-per-million concentration levels
 Author(s): Wolfrum EJ, Meglen RM, Peterson D, Sluiter J
 Source: SENSORS AND ACTUATORS B-CHEMICAL 115 (1): 322-329 MAY 23 2006
11. Title: A sensitive method for the quantification of **acrolein** and other volatile carbonyls in ambient air
 Author(s): Seaman VY, Charles MJ, Cahill TM
 Source: ANALYTICAL CHEMISTRY 78 (7): 2405-2412 APR 1 2006
12. Title: The use of semipermeable determine persistent membrane devices as passive samplers to **organic compounds** in indoor air
 Author(s): Strandberg B, Gustafson P, Soderstrom H, Barregard L, Bergqvist PA, Sallsten G
 Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (2): 257-262 FEB 2006
13. Title: Comparison of **24 h averaged VOC monitoring** results for residential indoor and outdoor air using Carbopack X-filled diffusive samplers and active sampling - a pilot study
 Author(s): McClenny WA, Jacumin HH, Oliver KD, Daughtrey EH, Whitaker DA
 Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (2): 263-269 FEB 2006
14. Title: Variations of **formaldehyde and VOC** levels during 3 years in new and older homes
 Author(s): Park JS, Ikeda K
 Source: INDOOR AIR 16 (2): 129-135 APR 2006
15. Title: Chamber evaluation of a portable GC with tunable retention and microsensor-array detection for indoor air quality monitoring
 Author(s): Lu CJ, Jin CG, Zellers ET
 Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (2): 270-278 FEB 2006
16. Title: Determination of primary, secondary and tertiary **aliphatic and aromatic amines, nitrogen heterocycles, and alkanolamines** in indoor air by HPLC-ESI-MS
 Author(s): Rampfl M, Breuer K, Niessner R
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (7-8): 293-299 JUL-AUG 2005
- **Émissions/adsorption par les matériaux**
17. Title: **Assessment of building products** by chemical and sensory tests
 Author(s): Salthammer T, Fuhrmann F, Kuhn V, Massold E, Schulz N
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 111-117 MAR 2004
18. Title: Volatile organic compound (VOC) **adsorption on material**: influence of gas phase concentration, relative humidity and VOC type
 Author(s): Huang H, Haghightat F, Blondeau P
 Source: INDOOR AIR 16 (3): 236-247 JUN 2006
19. Title: Detection of **emissions from surfaces using ion mobility spectrometry**
 Author(s): Vautz W, Baumbach JI, Uhde E
 Source: ANALYTICAL AND BIOANALYTICAL CHEMISTRY 384 (4): 980-986 FEB 2006

20. Title: Influence of molecular parameters on the **sink effect** in test chambers
 Author(s): Uhde E, Salthammer T
 Source: INDOOR AIR 16 (2): 158-165 APR 2006

ARTICLE DE SYNTHÈSE

21. Title: **Emission cells and comparison to small chambers for materials emissions testing**
 Author(s): Wolkoff P, Salthammer T, Woolfenden EA
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (3): 93-98 MAR 2005

- **Semi-volatils**

22. Title: **Dioxin-like polychlorinated Biphenyls (PCB) and polychlorinated Dibenzodioxins/Furans (PCDD/F)** in indoor air and house dust - Influence of PCB treated components depending on structural and climatic conditions
 Author(s): Volland G, Hansen D, Neuwirth A, Zolter D, Krause G
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 66 (3): 99-106 MAR 2006

23. Title: **Polybrominated diphenyl ethers** in indoor air in Kuwait: Implications for human exposure
 Author(s): Gevao B, Al-Bahloul M, Al-Ghadban AN, Ali L, Al-Omair A, Helaleh M, Al-Matrouk K, Zafar J
 Source: ATMOSPHERIC ENVIRONMENT 40 (8): 1419-1426 MAR 2006

24. Title: Determination of **polybrominated diphenyl ethers** in indoor dust standard reference materials
 Author(s): Stapleton HM, Harner T, Shoeib M, Keller JM, Schantz MM, Leigh SD, Wise SA
 Source: ANALYTICAL AND BIOANALYTICAL CHEMISTRY 384 (3): 791-800 FEB 2006

ARTICLE DE SYNTHÈSE

25. Title: **Surfactants** in house dust
 Author(s): Butte W, Eilers J, Ertl H
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 91-94 MAR 2004

- **Réactions chimiques**

26. Title: The effect of nitrogen dioxide on particle formation during ozonolysis of two abundant monoterpenes indoors
 Author(s): Nojgaard JK, Bilde M, Stenby C, Nielsen OJ, Wolkoff P
 Source: ATMOSPHERIC ENVIRONMENT 40 (6): 1030-1042 FEB 2006

27. Title: Gas-phase chemistry of **citronellol with ozone and OH radical**: Rate constants and products
 Author(s): Ham JE, Proper SP, Wells JR
 Source: ATMOSPHERIC ENVIRONMENT 40 (4): 726-735 FEB 2006

ARTICLE DE SYNTHÈSE

28. Title: Workgroup report: **Indoor chemistry and health**
 Author(s): Weschler CJ, Wells JR, Poppendieck D, Hubbard H, Pearce TA
 Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (3): 442-446 MAR 2006

I-3. Particules et fibres

29. Title: Analysis of indoor **particle size distributions** in an occupied townhouse using positive matrix factorization
 Author(s): Ogulei D, Hopke PK, Wallace LA
 Source: INDOOR AIR 16 (3): 204-215 JUN 2006

30. Title: Field comparison of **P-trak and condensation particle counters**
 Author(s): Zhu YF, Yu N, Kuhn T, Hinds WC
 Source: AEROSOL SCIENCE AND TECHNOLOGY 40 (6): 422-430 JUN 2006
31. Title: Continuous weeklong measurements of personal exposures and indoor concentrations of **fine particles** for 37 health-impaired North Carolina residents for up to four seasons
 Author(s): Wallace L, Williams R, Rea A, Croghan C
 Source: ATMOSPHERIC ENVIRONMENT 40 (3): 399-414 JAN 2006
32. Title: **Determinants of indoor air concentrations of PM2.5, black smoke and NO2** in six European cities (EXPOLIS study)
 Author(s): Lai HK, Bayer-Oglesby L, Colvile R, Gotschi T, Jantunen MJ, Kunzli N, Kulinskaya E, Schweizer C, Nieuwenhuijsen MJ
 Source: ATMOSPHERIC ENVIRONMENT 40 (7): 1299-1313 MAR 2006
33. Title: Using multiple continuous **fine particle monitors** to characterize tobacco, incense, candle, cooking, wood burning, and vehicular sources in indoor, outdoor, and in-transit settings
 Author(s): Ott WR, Siegmann HC
 Source: ATMOSPHERIC ENVIRONMENT 40 (5): 821-843 FEB 2006
34. Title: Environmental risks caused by **asbestos fibres and other inorganic fibres**
 Author(s): Rodelsperger K, Teichert U, Bruckel B
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (10): 415-426 OCT 2004
35. Title: Measuring the concentrations of **asbestos fibres** in public buildings
 Author(s): Schmitz I, Falkhausen M, Klemp G, Muller KM
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (10): 427-434 OCT 2004

ARTICLE DE SYNTHÈSE

36. Title: Indoor exposure to **fine and ultra fine particles**
 Author(s): Bake D, Moriske HJ, Sussenbach B
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 84-87 MAR 2004

I-4. Biocontaminants

37. Title: Measurement of **fungi** airborne in indoor environment: use of ergosterol
 Author(s): Robine E, Lacaze I, Moularat S, Boissier M, Ritoux S
 Source: REVUE FRANCAISE D ALLERGOLOGIE ET D IMMUNOLOGIE CLINIQUE 46 (3): 174-179 APR 2006
38. Title: Measurement of airborne **mycotoxins**
 Author(s): Moularat S, Robine E
 Source: REVUE FRANCAISE D ALLERGOLOGIE ET D IMMUNOLOGIE CLINIQUE 46 (3): 180-183 APR 2006
39. Title: Indoor **moulds** detection by the measurement of (1 → 3)-beta-D-glucanes
 Author(s): Bex V, Squinazi F
 Source: REVUE FRANC D'ALLERGOLOGIE ET D'IMMUNOLOGIE CLINIQUE 46 (3): 184-187 APR 2006
40. Title: Culturability and concentration of indoor and outdoor airborne **fungi** in six single-family homes
 Author(s): Lee T, Grinshpun SA, Martuzevicius D, Adhikari A, Crawford CM, Reponen T
 Source: ATMOSPHERIC ENVIRONMENT 40 (16): 2902-2910 MAY 2006

41. Title: Elevated concentrations of **endotoxin** in indoor air due to cigarette smoking
 Author(s): Sebastian A, Pehrson C, Larsson L
 Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (5): 519-522 2006
42. Title: Assessment of **fungal contamination** in moldy homes: Comparison of different methods
 Author(s): Niemeier RT, Sivasubramani SK, Reponen T, Grinshpun SA
 Source: JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE 3 (5): 262-273 MAY 2006
43. Title: Inter-laboratory test "Identification of Indoor-**Fungi**" with natural samples
 Author(s): Gabrio T, Seidl HP, Szewzyk R, Trautmann C, Weidner U
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (9): 353-357 SEP 2005
44. Title: Particle size distributions and concentrations of airborne **endotoxin** using novel collection methods in homes during the winter and summer seasons
 Author(s): Kujundzic E, Hernandez M, Miller SL
 Source: INDOOR AIR 16 (3): 216-226 JUN 2006
45. Title: Detection of **deoxynivalenol** in foods and indoor air using an array biosensor
 Authors: Ngundi MM, Qadri SA, Wallace EV, Moore MH, Lassman ME, Shriver-Lake LC, Ligler FS, Taitt CR
 Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY 40 (7): 2352-2356 APR 1 2006
46. Title: Hazard identification, dose-response and environmental characteristics of **stachybotryotoxins** and other health-related products from Stachybotrys
 Author(s): Lai KN
 Source: ENVIRONMENTAL TECHNOLOGY 27 (3): 329-335 MAR 2006
47. Title: Dustborne **Alternaria alternata** antigens in US homes: Results from the National Survey of Lead and Allergens in Housing
 Author(s): Salo PM, Yin M, Arbes SJ, Cohn RD, Sever M, Muilenberg M, Burge HA, London SJ, Zeldin DC
 Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 116 (3): 623-629 SEP 2005
48. Title: Fluorochrome in monitoring **indoor bioaerosols**
 Author(s): Li CS, Huang TY
 Source: AEROSOL SCIENCE AND TECHNOLOGY 40 (4): 237-241 APR 2006

ARTICLE DE SYNTHÈSE

49. Title: Significance of air- and dust-studies for the assessment of mould-problems in indoor environments
 Author(s): Gabrio T, Seidl HP, Szewzyk R, Trautmann C, Weidner U
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (3): 106-113 MAR 2005

I-5. Pesticides

50. Title: Rapid and sensitive determination of **pyrethroids** indoors using active sampling followed by ultrasound-assisted solvent extraction and gas chromatography
 Author(s): Barro R, Garcia-Jares C, Llompard M, Bollain MH, Cela R
 Source: JOURNAL OF CHROMATOGRAPHY A 1111 (1): 1-10 APR 7 2006
51. Title: Determination of **pyrethroids** using an ELISA in air and house dust samples - Comparison with GCMS measurements
 Author(s): Elflein L, Muller M, Berger-Preiss E
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 88-90 MAR 2004

52. Title: **Herbicides in house dust** - Samples from dwellings adjacent to tree nurseries compared to controls
Author(s): Butte W, Schenke H, Heinzow B
Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 66 (3): 112-115 MAR 2006
53. Title: Microwave-assisted extraction of **pyrethroid** insecticides from semi permeable membrane devices (SPMDs) used to indoor air monitoring
Author(s): Esteve-Turrillas FA, Pastor A, de la Guardia M
Source: ANALYTICA CHIMICA ACTA 560 (1-2): 118-127 FEB 23 2006
54. Title: Determination of household **insecticides** in indoor air by gas chromatography-mass spectrometry
Author(s): Berger-Preiss E, Elflein L
Source: PESTICIDE PROTOCOLS 19: 179-190 2005

I-6. Métaux lourds

55. Title: An exterior and **interior leaded dust** deposition survey in New York City: Results of a 2-year study
Author(s): Caravanos J, Weiss AL, Jaeger RJ
Source: ENVIRONMENTAL RESEARCH 100 (2): 159-164 FEB 2006
56. Title: **Lead dust** in Broken Hill homes: Effect of remediation on indoor lead levels
Author(s): Boreland F, Lyle DM
Source: ENVIRONMENTAL RESEARCH 100 (2): 276-283 FEB 2006

I-7. Fumée de tabac environnementale

57. Title: A modified method for diffusive monitoring of 3-ethenylpyridine as a specific marker of environmental tobacco smoke
Author(s): Kuusimäki L, Peltonen K, Vainiotalo S
Source: ATMOSPHERIC ENVIRONMENT 40 (16): 2882-2892 MAY 2006
58. Title: **Effect of ozone on nicotine desorption from model surfaces**: Evidence for heterogeneous chemistry
Author(s): Destailats H, Singer BC, Lee SK, Gundel LA
Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY 40 (6): 1799-1805 MAR 15 2006

II- LIEUX DE VIE

II-1. Habitat privé

- **Utilisation de produits de consommation courante**

59. Title: **Cleaning products and air fresheners**: emissions and resulting concentrations of glycol ethers and terpenoids

Author(s): Singer BC, Destailats H, Hodgson AT, Nazaroff WW

Source: INDOOR AIR 16 (3): 179-191 JUN 2006

60. Title: Characteristics of emissions of air pollutants from **mosquito coils and candles burning** in a large environmental chamber

Author(s): Lee SC, Wang B

Source: ATMOSPHERIC ENVIRONMENT 40 (12): 2128-2138 APR 2006

- **Contribution du garage attenant**

61. Title: Concentrations and emissions of gasoline and other vapors from residential vehicle garages

Author(s): Batterman S, Hatzvassilis G, Jia CR

Source: ATMOSPHERIC ENVIRONMENT 40 (10): 1828-1844 MAR 2006

II-2. Transports

62. Title: Methanol exposure to **car** occupants from windshield washing fluid: a pilot study

Author(s): Becalski A, Bartlett KH

Source: INDOOR AIR 16 (2): 153-157 APR 2006

63. Title: Dust in the **underground railway tunnels** of an Italian town

Author(s): Ripanucci G, Grana M, Vicentini L, Magrini A, Bergamaschi A

Source: JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE 3 (1): 16-25 JAN 2006

64. Title: Changes in ocular and nasal signs and symptoms among air crew in relation to air humidification on **intercontinental flights**

Author(s): Norback D, Lindgren T, Wieslander G

Source: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH 32 (2): 138-144 APR 2006

65. Title: **Taxis** but not private cars are mite allergen reservoirs in Brazil

Author(s): Taketomi EA, Justino CM, Pereira FL, Segundo GR, Sopelete MC, Sung SJ, Silva DA

Source: J OF INVESTIGATIONAL ALLERGOLOGY AND CLINICAL IMMUNOLOGY 16 (1): 34-36 2006

II-3. Autres lieux de vie

- **Ecoles et crèches**

66. Title: Exposure to indoor **allergens** in day-care facilities: Results from 2 North Carolina counties

Author(s): Arbes SJ, Sever M, Mehta J, Collette N, Thomas B, Zeldin DC

Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 116 (1): 133-139 JUL 2005

67. Title: A nationwide study of indoor and outdoor environments in **allergen avoidance** and conventional **daycare centers** in Sweden

Author(s): Broms K, Svardsudd K, Sundelin C, Norback D

Source: INDOOR AIR 16 (3): 227-235 JUN 2006

68. Title: **Radon** in Irish schools: the results of a national survey
 Author(s): Synnott H, Hanley O, Fenton D, Colgan PA
 Source: JOURNAL OF RADIOLOGICAL PROTECTION 26 (1): 85-96 MAR 2006

69. Title: **Radon** doses in Slovenian schools based on alpha spectroscopy
 Author(s): Vaupotic J, Kobal I
 Source: ACTA CHIMICA SLOVENICA 53 (1): 8-12 2006

- **Bureaux**

70. Title: Air quality assessment at work-places in **offices**
 Authors: Schlechter N, Pohl K, Barig A, Kupka S, Kleine H, Gabriel S, Van Gelder R, Lichtenstein N, Hennig M
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 95-99 MAR 2004

71. Title: Consideration of indoor air quality aspects **during the reconstruction of an office block**
 Author(s): Braun R, Schmidt W
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (6): 257-262 JUN 2005

72. Title: Epistemic assessment of **radon level** of offices in Hong Kong
 Author(s): Wong LT, Mui KW, Law KY, Hui PS
 Source: ATMOSPHERIC ENVIRONMENT 40 (8): 1441-1451 MAR 2006

- **Lieux publics**

73. Title: **Aldehyde** measurements in indoor environments in Strasbourg (France)
 Author(s): Marchand C, Buillot B, Le Calve S, Mirabel P
 Source: ATMOSPHERIC ENVIRONMENT 40 (7): 1336-1345 MAR 2006

74. Title: Characteristics and health impacts of volatile organic compounds in **photocopy centers**
 Author(s): Lee CW, Dai YT, Chien CH, Hsu DJ
 Source: ENVIRONMENTAL RESEARCH 100 (2): 139-149 FEB 2006

- **Hôpitaux**

75. Title: Hospital indoor **respirable particles** and carbonaceous composition
 Author(s): Wang XH, Bi XH, Chen DH, Sheng GY, Fu JM
 Source: BUILDING AND ENVIRONMENT 41 (8): 992-1000 AUG 2006

76. Title: **Control and management** of hospital indoor air quality
 Author(s): Leung M, Chan AHS
 Source: MEDICAL SCIENCE MONITOR 12 (3): SXVII-SXXIII MAR 2006

II-4. Ventilation

77. Title: Effects of **inlet and exhaust locations** and emitted gas density on indoor air contaminant concentrations
 Author(s): Khan JA, Feigley CE, Lee E, Ahmed MR, Tamanna S
 Source: BUILDING AND ENVIRONMENT 41 (7): 851-863 JUL 2006

78. Title: Simultaneous **measurement of ventilation using tracer gas techniques and VOC concentrations** in homes, garages and vehicles
 Author(s): Batterman S, Jia CR, Hatzivasilis G, Godwin C
 Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (2): 249-256 FEB 2006

II-5. Modélisation

79. Title: Numerical investigation of airflow pattern and particulate matter transport in naturally ventilated multi-room buildings
 Author(s): Chang TJ, Hsieh YF, Kao HM
 Source: INDOOR AIR 16 (2): 136-152 APR 2006

II-6. Air extérieur – Air intérieur

80. Title: Characteristics of indoor and outdoor **bioaerosols** at Korean high-rise apartment buildings
 Author(s): Lee JH, Jo WK
 Source: ENVIRONMENTAL RESEARCH 101 (1): 11-17 MAY 2006

81. Title: Measurement of indoor-outdoor **carbonyls** at four residential homes in Mexico city metropolitan area
 Author(s): Baez AP, Padilla H, Garcia R, Belmont R, Torres MD
 Source: INTERNATIONAL JOURNAL OF ENVIRONMENT AND POLLUTION 26 (1-3): 90-105 2006

82. Title: Estimating contributions of indoor and outdoor sources to indoor **carbonyl** concentrations in three urban areas of the United States
 Author(s): Liu W, Zhang J, Zhang L, Turpin BJ, Welsel CP, Morandi MT, Stock TH, Colome S, Korn LR
 Source: ATMOSPHERIC ENVIRONMENT 40 (12): 2202-2214 APR 2006

83. Title: The influences of ambient **particle composition and size on particle infiltration** in Los Angeles, CA, residences
 Author(s): Sarnat SE, Coull BA, Ruiz PA, Koutrakis P, Suh HH
 Source: JOURNAL OF THE AIR & WASTE MANAGEMENT ASSOCIATION 56 (2): 186-196 FEB 2006

- **Contribution d'un sol pollué**

84. Title: Soil investigation and human health risk assessment for nickel in community soils near a former nickel refinery in southern Ontario, Canada
 Author(s): Birmingham B, McLaughlin D
 Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (9): 845-892 MAY 1 2006

85. Title: Simulating the effect of aerobic biodegradation on **soil vapor intrusion** into buildings: Influence of degradation rate, source concentration, and depth
 Author(s): Abreu LDV, Johnson PC
 Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY 40 (7): 2304-2315 APR 1 2006

ARTICLE DE SYNTHÈSE

86. Title: Employing dynamical and chemical processes for contaminant mixtures outdoors to the indoor environment: The implications for total human exposure analysis and prevention
 Author(s): Lioy PJ
 Source: JOURNAL OF EXPOSURE SCIENCE AND ENVIRONMENTAL EPIDEMIOLOGY 16 (3): 207-224 MAY 2006

III- EFFETS SANITAIRES

III-1. Effets chez l'animal - Toxicologie expérimentale

Pas d'article

III-2. Effets chez l'homme

- **Généralités**

ARTICLE DE SYNTHÈSE

87. Title: Induction of **asthma** and the environment: What we know and need to know

Author(s): Selgrade MK, Lemanske RF, Gilmour MI, Neas LM, Ward MDW, Henneberger PK, Weissman DN, Hoppin JA, Dietert RR, Sly PD, Geller AM, Enright PL, Backus GS, Bromberg PA, Germolec DR, Yeatts KB

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (4): 615-619 APR 2006

ARTICLE DE SYNTHÈSE

88. Title: A brief targeted review of susceptibility factors, environmental exposures, **asthma** incidence, and recommendations for future asthma incidence research

Author(s): Yeatts K, Sly P, Shore S, Weiss S, Martinez F, Geller A, Bromberg P, Enright P, Koren H, Weissman D, Selgrade M

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (4): 634-640 APR 2006

- **Radon**

EDITORIAL

89. Title: Residential radon and lung cancer: End of the story?

Author(s): Samet JM

Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 527-531 APR 1 2006

90. Title: A combined analysis of North American case-control studies of residential radon and lung cancer

Author(s): Krewski D, Lubin JH, Zielinski JM, Alavanja M, Catalan VS, Field RW, Klotz JB, Letourneau EG, Lynch CF, Lyon JL, Sandler DP, Schoenberg JB, Steck DJ, Stolwijk JA, Weinberg C, Wilcox HB

Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 533-597 APR 1 2006

91. Title: An overview of the North American residential radon and lung cancer case-control studies

Author(s): Field RW, Krewski D, Lubin JH, Zielinski JM, Alavanja M, Catalan VS, Klotz JB, Letourneau EG, Lynch CF, Lyon JL, Sandler DP, Schoenberg JB, Steck DJ, Stolwijk JA, Weinberg C, Wilcox HB

Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 599-631 APR 1 2006

92. Title: Indoor radon and lung cancer risk in Connecticut and Utah

Author(s): Sandler DP, Weinberg CR, Shore DL, Archer VE, Stone MB, Lyon JL, Rothney-Kozlak L, Shepherd M, Stolwijk JAJ

Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 633-654 APR 1 2006

93. Title: Radon epidemiology: Continuous and categorical trend estimators when the exposure distribution is skewed and outliers may be present

Author(s): Rosario AS, Wellmann J, Heid IM, Wichmann HE

Source: JOURNAL OF TOXICOLOGY AND ENVIRONMENTAL HEALTH-PART A-CURRENT ISSUES 69 (7-8): 681-700 APR 1 2006

ARTICLE DE SYNTHÈSE

94. Title: Residential radon and lung cancer - detailed results of a collaborative analysis of individual data on 7148 persons with lung cancer and 14208 persons without lung cancer from 13 epidemiologic studies in Europe

Author(s): Darby S, Hill D, Deo H, Auvinen A, Barros-Dios JM, Baysson H, Bochicchio F, Falk R, Farchi S, Figueiras A, Hakama M, Heid I, Hunter N, Kreienbrock L, Kreuzer M, Lagarde F, Makelainen I, Muirhead C, Oberaigner W, Pershagen G, Ruosteenoja E, Rosario AS, Tirmarche M, Tomasek L, Whitley E, Wichmann HE, Doll R

Source: SCANDINAVIAN JOURNAL OF WORK ENVIRONMENT & HEALTH 32: 1+ Suppl. 1 2006

- **COV/aldéhydes**

95. Title: Influence of short-term exposure to airborne **Der p 1 and volatile organic compounds** on skin barrier function and dermal blood flow in patients with atopic eczema and healthy individuals

Author(s): Huss-Marp J, Eberlein-Konig B, Breuer K, Mair S, Ansel A, Darsow U, Kramer U, Mayer E, Ring J, Behrendt H

Source: CLINICAL AND EXPERIMENTAL ALLERGY 36 (3): 338-345 MAR 2006

ARTICLE DE SYNTHÈSE

96. Title: The bronchial response to inhaled formaldehyde

Author(s): Casset A, Purohit A, Marchand C, Le Calve S, Donnay C, Uring-Lambert B, Bahram S, Pauli G, de Blay F

Source: REVUE DES MALADIES RESPIRATOIRES 23: S25-S34 Suppl. 1 FEB 2006

- **Biocontaminants**

97. Title: Intranasal air sampling in homes: Relationships among reservoir **allergen concentrations and asthma severity**

Author(s): Gore RB, Curbishley L, Truman N, Hadley E, Woodcock A, Langley SJ, Custovic A

Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 117 (3): 649-655 MAR 2006

98. Title: National prevalence and exposure risk for **cockroach allergen** in US households

Author(s): Cohn RD, Samuel JA, Jaramillo R, Reid LH, Zeldin DC

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (4): 522-526 APR 2006

ARTICLE DE SYNTHÈSE

99. Title: Indoor air pollution: the importance of identifying disease-causing **moulds**

Author(s): Boutin-Forzano S, Charpin-Kadouch C, Gouitaa A, Dumon H, Charpin D

Source: REVUE FRANCAISE D ALLERGOLOGIE ET D IMMUNOLOGIE CLINIQUE 46 (3): 197-203 APR 2006

ARTICLE DE SYNTHÈSE

100. Title: Environmental health criteria in indoor air problems - example: **moulds** in indoor environments

Author(s): Herr C, Seitz H, Eikmann T

Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 64 (3): 79-83 MAR 2004

- **Humidité**

101. Title: Prevalence and incidence of respiratory symptoms in relation to indoor dampness: the RHINE study
 Author(s): Gunnbjornsdottir MI, Franklin KA, Norback D, Bjornsson E, Gislason D, Lindberg E, Svanes C, Omenaas E, Norrman E, Jogi R, Jensen EJ, Dahlman-Hoglund A, Janson C
 Source: THORAX 61 (3): 221-225 MAR 2006

- **SBS**

102. Title: Indicators of **moisture and ventilation system contamination in US office buildings** as risk factors for respiratory and mucous membrane symptoms: Analyses of the EPA BASE data
 Author(s): Mendell MJ, Cozen M, Lei-Gomez Q, Brightman HS, Erdmann CA, Girman JR, Womble SE
 Source: JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE 3 (5): 225-233 MAY 2006

103. Title: Influence of ozone-limonene reactions on **perceived air quality**
 Author(s): Tamas G, Weschler CJ, Toftum J, Fanger PO
 Source: INDOOR AIR 16 (3): 168-178 JUN 2006

104. Title: The impact of sorption on **perceived indoor air quality**
 Author(s): Sakr W, Weschler CJ, Fanger PO
 Source: INDOOR AIR 16 (2): 98-110 APR 2006

105. Title: Building health: an **epidemiological study of "sick building syndrome"** in the Whitehall II study
 Author(s): Marmot AF, Eley J, Stafford M, Stansfeld SA, Warwick E, Marmot MG
 Source: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 63 (4): 283-289 APR 2006

III-3. Populations sensibles

- **Enfants**

106. Title: Does early indoor **microbial exposure** reduce the risk of asthma? The Prevention and Incidence of Asthma and Mite Allergy birth cohort study
 Authors: Douwes J, van Strien R, Doekes G, Smit J, Kerkhof M, Gerritsen J, Postma D, Travier N, Brunekreef B
 Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 117 (5): 1067-1073 MAY 2006

107. Title: **Endotoxin** in inner-city homes: Associations with wheeze and eczema in early childhood
 Author(s): Perzanowski MS, Miller RL, Thorne PS, Barr RG, Divjan A, Sheares BJ, Garfinkel RS, Perera FP, Goldstein IF, Chew GL
 Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 117 (5): 1082-1089 MAY 2006

108. Title: Effect of **animal contact and microbial exposures** on the prevalence of atopy and asthma in urban vs rural children in India
 Author(s): Vedanthan PK, Mahesh PA, Vedanthan R, Holla AD, Liu AH
 Source: ANNALS OF ALLERGY ASTHMA & IMMUNOLOGY 96 (4): 571-578 APR 2006

109. Title: Childhood asthma and indoor **aeroallergens and endotoxin** in Palestine: A case-control study
 Author(s): El-Sharif N, Douwes J, Hoet P, Nemery B
 Source: JOURNAL OF ASTHMA 43 (3): 241-247 2006

110. Title: Children's homes - determinants of **moisture damage and asthma** in Finnish residences
 Author(s): Haverinen-Shaughnessy U, Pekkanen J, Hyvarinen A, Nevalainen A, Putus T, Korppi M, Moschandreas D
 Source: INDOOR AIR 16 (3): 248-255 JUN 2006

111. Title: **Airborne endotoxin** is associated with respiratory illness in the first 2 years of life
 Author(s): Dales R, Miller D, Ruest K, Guay M, Judek S
 Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (4): 610-614 APR 2006
112. Title: **Indoor environmental exposures** among children with asthma seen in an urban emergency department
 Author(s): Teach SJ, Crain EF, Quint DM, Hylan ML, Joseph JG
 Source: PEDIATRICS 117 (4): S152-S158 Suppl. S APR 2006
113. Title: Epidemiological study on **passive smoking** among Japanese infants and smoking behavior of their respective parents: A nationwide cross-sectional
 Author(s): Kaneita Y, Yokoyama E, Miyake T, Harano S, Asai T, Tsutsui T, Ibuka E, Suzuki K, Kaneko A, Sone T, Takemura S, Kawahara K, Ohida T
 Source: PREVENTIVE MEDICINE 42 (3): 210-217 MAR 2006
114. Title: Familiar and **environmental factors** influencing atopic dermatitis in the childhood
 Author(s): Sebok B, Schneider I, Harangi F
 Source: JOURNAL OF THE EUROPEAN ACADEMY OF DERMATOLOGY AND VENEREOLOGY 20 (4): 418-422 APR 2006
115. Title: Household exposure to **pesticides** and risk of childhood acute leukaemia
 Author(s): Menegaux F, Baruchel A, Bertrand Y, Lescoeur B, Leverger G, Nelken B, Sommelet D, Hemon D, Clavel J
 Source: OCCUPATIONAL AND ENVIRONMENTAL MEDICINE 63 (2): 131-134 FEB 2006
116. Title: Importance of the personal **endotoxin** cloud in school-age children with asthma
 Author(s): Rabinovitch N, Liu AH, Zhang LN, Rodes CE, Foarde K, Dutton SJ, Murphy JR, Gelfand EW
 Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 116 (5): 1053-1057 NOV 2005
117. Title: Does a multifaceted environmental intervention alter the impact of **asthma** on inner-city children?
 Author(s): Williams SG, Brown CM, Falter KH, Alverson CJ, Gotway-Crawford C, Homa D, Jones DS, Adams EK, Redd SC
 Source: JOURNAL OF THE NATIONAL MEDICAL ASSOCIATION 98 (2): 249-260 FEB 2006
118. Title: Evaluation of **biogeneous factors** of indoor hygiene in bedrooms of children visiting a pediatric pneumology specialist clinic within a seasonal cycle
 Author(s): Herr CEW, Harpel S, Schenke S, zur Nieden A, Rethage T, Lindemann H, Eikmann TF
 Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (9): 345-352 SEP 2005

ARTICLE DE SYNTHÈSE

119. Title: **Environmental tobacco smoke** and sudden infant death syndrome: A review
 Author(s): Adgent MA
 Source: BIRTH DEFECTS RESEARCH PART B-DEVELOPMENTAL AND REPRODUCTIVE TOXICOLOGY 77 (1): 69-85 FEB 2006

- **Malades**

120. Title: Exposure time and place: Do **COPD patients** differ from the general population?
 Author(s): Judith AL, Smith-Doiron M
 Source: JOURNAL OF EXPOSURE SCIENCE AND ENVIRONMENTAL EPIDEMIOLOGY 16 (3): 238-241 MAY 2006

IV- EVALUATION DES RISQUES

IV-1 Expologie

121. Title: Estimation of ambient and non-ambient components of **particulate matter** exposure from a personal monitoring panel study

Author(s): Wilson WE, Brauer M

Source: JOURNAL OF EXPOSURE SCIENCE AND ENVIRONMENTAL EPIDEMIOLOGY 16 (3): 264-274 MAY 2006

122. Title: Personal exposures and indoor, residential outdoor, and urban background levels of **fine particle** trace elements in the general population

Author(s): Molnar P, Johannesson S, Boman J, Barregard L, Sallsten G

Source: JOURNAL OF ENVIRONMENTAL MONITORING 8 (5): 543-551 2006

123. Title: An analysis of factors that influence personal exposure to **toluene and xylene** in residents of Athens, Greece - art. no. 50

Author(s): Alexopoulos EC, Chatzis C, Linos A

Source: BMC PUBLIC HEALTH 6: 50-50 FEB 28 2006

124. Title: Changes in breath **trihalomethane** levels resulting from household water-use activities

Author(s): Gordon SM, Brinkman MC, Ashley DL, Blount BC, Lyu C, Masters J, Singer PC

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (4): 514-521 APR 2006

125. Title: IPEADAM study: Indoor **endotoxin exposure**, family status, and some housing characteristics in English children

Author(s): Tavernier G, Fletcher G, Gee I, Watson A, Blacklock G, Francis H, Fletcher A, Frank T, Frank P, Pickering CA, Niven R

Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 117 (3): 656-662 MAR 2006

126. Title: Measuring potential **dermal transfer of a pesticide** to children in a child care center

Author(s): Hubal EAC, Egeghy PP, Leovic KW, Akland GG

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (2): 264-269 FEB 2006

ARTICLE DE SYNTHÈSE

127. Title: Factors affecting the association between ambient concentrations and personal exposures to **particles and gases**

Author(s): Sarnat SE, Coull BA, Schwartz J, Gold DR, Suh HH

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (5): 649-654 MAY 2006

ARTICLE DE SYNTHÈSE

128. Title: Determining data when **calculating exposure**

Author(s): Kleine H

Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (4): 151-155 APR 2005

- **Biomarqueurs**

129. Title: Evaluation of urinary methoxyphenols as biomarkers of **woodsmoke exposure**

Author(s): Dills RL, Paulsen M, Ahmad J, Kalman DA, Elias FN, Simpson CD

Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY 40 (7): 2163-2170 APR 1 2006

- **Comportements**

130. Title: Socio-demographic characteristics of UK families using **pesticides** and weed-killers

Author(s): Steer CD, Grey CNB

Group Author(s): ALSPAC Study Team

Source: JOURNAL OF EXPOSURE SCIENCE AND ENVIRONMENTAL EPIDEMIOLOGY 16 (3): 251-263
MAY 2006

131. Title: Contributions of Chinese-style **cooking and incense burning** to personal exposure and residential PM concentrations in Taiwan region

Author(s): Liao CM, Chen SC, Chen JW, Liang HM

Source: SCIENCE OF THE TOTAL ENVIRONMENT 358 (1-3): 72-84 APR 1 2006

IV-2 Evaluation des risques

Pas d'article

GESTION

- **Technique**

132. Title: Achieving 'excellent' indoor air quality in commercial offices equipped with **air-handling unit - respirable suspended particulate**

Author(s): Lam KS, Chan FS, Fung WY, Lui BSS, Lau LWL

Source: INDOOR AIR 16 (2): 86-97 APR 2006

133. Title: **Health effects of ultraviolet irradiation in asthmatic children's homes**

Author(s): Bernstein JA, Bobbitt RC, Levin L, Floyd R, Crandall MS, Shalwitz RA, Seth A, Glazman M

Source: JOURNAL OF ASTHMA 43 (4): 255-262 MAY 2006

134. Title: Considerations about the **efficiency and toxicological implications of NTP air cleaning devices**

Author(s): Heberer H, Nies E, Dietschi M, Moller A, Pflaumbaum W, Steinhausen M

Source: GEFAHRSTOFFE REINHALTUNG DER LUFT 65 (10): 419-424 OCT 2005

135. Title: Effectiveness of **photocatalytic filter** for removing volatile organic compounds in the heating, ventilation, and air conditioning system

Author(s): Yu KP, Lee WM, Huang WM, Wu CC, Lou CL, Yang SH

Source: JOURNAL OF THE AIR & WASTE MANAGEMENT ASSOCIATION 56 (5): 666-674 MAY 2006

136. Title: Enhanced **photocatalytic disinfection** of indoor air

Author(s): Vohra A, Goswami DY, Deshpande DA, Block SS

Source: APPLIED CATALYSIS B-ENVIRONMENTAL 64 (1-2): 57-65 APR 18 2006

137. Title: The immobilization of **titanium dioxide on organic polymers**, for a cost effective and energy efficient means of improving indoor air quality

Author(s): Birnie M, Gillott M, Riffat S

Source: INTERNATIONAL JOURNAL OF GREEN ENERGY 3 (1): 101-114 JAN-MAR 2006

138. Title: **Gypsum-zeolite boards** for improving the quality of indoor air (Part 2)

Author(s): Hummel HU

Source: ZKG INTERNATIONAL 59 (1): 72-80 2006

139. Title: **Spatial flow influence factor**: A novel concept for indoor air pollutant control

Author(s): Zhang YP, Li XF, Wang XK, Deng W, Qian K

Source: SCIENCE IN CHINA SERIES E-ENGINEERING & MATERIALS SCIENCE 49 (1): 115-128 FEB 2006

140. Title: Allergen avoidance: the services of the **home environment medical advisors**

Author(s): Ott M, de Blay F

Source: REVUE FRANCAISE D ALLERGOLOGIE ET D IMMUNOLOGIE CLINIQUE 46 (3): 330-331 APR 2006

141. Title: Cost-effectiveness of a **home-based environmental intervention** for inner-city children with asthma

Author(s): Kattan M, Stearns SC, Crain EF, Stout JW, Gergen PJ, Evans R, Visness CM, Gruchalla RS, Morgan WJ, O'Connor GT, Mastin JP, Mitchell HE

Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 116 (5): 1058-1063 NOV 2005

ARTICLE DE SYNTHÈSE

142. Title: Improving indoor environments: Reducing allergen exposures

Author(s): Eggleston PA

Source: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY 116 (1): 122-126 JUL 2005

ARTICLE DE SYNTHÈSE

143. Title: What is an effective **portable air cleaning device**? A review

Author(s): Shaughnessy RJ, Sextro RG

Source: JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL HYGIENE 3 (4): 169-181 APR 2006

- **Réglementaire**

144. Title: Predictors of support for **environmental tobacco smoke bans** in state government

Author(s): Andersen PA, Buller DB, Voeks JH, Borland R, Helme D, Bettinghaus EP, Young WF

Source: AMERICAN JOURNAL OF PREVENTIVE MEDICINE 30 (4): 292-299 APR 2006

DIVERS

145. Title: **Building calibration for IAQ management**

Author(s): Mui KW, Chan WT

Source: BUILDING AND ENVIRONMENT 41 (7): 877-886 JUL 2006

146. Title: Case report: A case of **wood-smoke-related pulmonary disease**

Author(s): Diaz JV, Koff J, Gotway MB, Nishimura S, Balmes JR

Source: ENVIRONMENTAL HEALTH PERSPECTIVES 114 (5): 759-762 MAY 2006

147. Title: Environmental monitoring of benzene and toluene produced in indoor air due to **combustion of solid biomass fuels**

Author(s): Sinha SN, Kulkarni PK, Shah SH, Desai NM, Patel GM, Mansuri MM, Saiyed HN

Source: SCIENCE OF THE TOTAL ENVIRONMENT 357 (1-3): 280-287 MAR 15 2006